

R E M A R K S

I. Introduction

In response to the pending Office Action, Applicants have amended claims 1 and 5-7 in order to further clarify the subject matter of the present invention and to overcome § 112 rejections. In addition, claims 2-4 have been cancelled, without prejudice. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art references.

II. The Rejection Of Claims 1-7 Under 35 U.S.C. § 102

Claims 1-7 were rejected under 35 U.S.C. § 102(b) as being anticipated by Anzai (JP 11-273739). Applicants respectfully submit that Anzai fails to anticipate the pending claims for at least the following reasons.

With regard to the present invention, amended claims 1 and 6 both recite, in-part, an electrode group for a secondary battery wherein one of said positive electrode and said negative electrode serving as the outermost turn of said electrode group has: a double side exposed current collector part ranging from the lengthwise end thereof to a predetermined position inside along the winding direction, on both sides of which the positive or negative electrode material mixture layer is not formed; and a single side exposed current collector part continued from said double side exposed current collector part to a predetermined position inside along the winding direction, only on an inner circumference side of which the positive or negative electrode material mixture layer is formed, a lead is connected to said double side exposed current collector part, a lengthwise end of said separator lies inside from said lead, and a lead is connected to said double side exposed current collector part, a lengthwise end of said separator

lies inside along the winding direction from said lead, and a plurality of step portions, at least one of said step portions having difference in level formed in said electrode group by lengthwise ends of said current collector part serving as the outermost turn and said separator, respectively, are covered with an insulating member from an inner side of said electrode group.

In contrast to the present invention, Anzai fails to disclose a plurality of step portions, at least one of said step portions having difference in level formed in said electrode group by lengthwise ends of said current collector part serving as the outermost turn and said separator, respectively, are covered with an insulating member from an inner side of said electrode group. Anzai teaches an ion insulator that is arranged between a positive mixture layer and a negative mixture layer. Thus, the insulator of Anzai does not cover the step portion.

The Anzai reference is directed towards a technique of arranging an ionic insulator between an end of the positive electrode material mixture layer and the negative electrode material mixture layer opposing thereto. This technique is intended to control the charge reaction itself involving the intercalation-deintercalation of lithium ions by the ionic insulator to inhibit the positive electrode potential from locally increasing and prevent the internal short circuit. However, the technique of Anzai cannot prevent the short circuit because the ionic insulator is arranged between the positive and negative electrode material mixture layers. Furthermore, because the ionic insulator is situated in between the positive and negative electrode mixture layers, the electrode reaction is inhibited and the capacity decreases.

The configuration of the insulator in the present invention helps prevent the above mentioned problem. As can be seen in Fig. 1 of the present invention, the insulating member 5 is located on the inner side of the electrode group on the outermost turn of the winding. Thus, the insulator is located between the current collector and the separator and not between the positive

and negative material mixture layers. The significance of this difference is that embodiments of the present invention can prevent unequal thickness, or level, of the electrode group resulting in short circuits, whereas Anzai does not.

Furthermore, Anzai fails to disclose that a lead is connected to said double side exposed current collector part. As the positive electrode mixture layer 18 of Anzai appears to be in contact with the end lead (see, Fig 2 of Anzai), the current collector part connected to the lead would not be exposed on both sides (double side exposed). Accordingly, Anzai does not teach that the lead is connected to a double side exposed current collector part.

Anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently in a prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), and Anzai does not disclose an electrode group for a secondary battery wherein one of said positive electrode and said negative electrode serving as the outermost turn of said electrode group has: a double side exposed current collector part ranging from the lengthwise end thereof to a predetermined position inside along the winding direction, on both sides of which the positive or negative electrode material mixture layer is not formed; and a single side exposed current collector part continued from said double side exposed current collector part to a predetermined position inside along the winding direction, only on an inner circumference side of which the positive or negative electrode material mixture layer is formed a lead is connected to said double side exposed current collector part, and a plurality of step portions, at least one of said step portions having difference in level formed in said electrode group by lengthwise ends of said electrode serving as the outermost turn and said separator, respectively, are covered with an insulating member from an inner side of said electrode group.

Therefore, it is clear that Anzai fails to anticipate amended claims 1 and 6 or any dependent claims thereon, and Applicants respectfully request that the § 102 rejection be traversed.

III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claims 1 and 6 are patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

IV. Conclusion

Having responded to all open issues set forth in the Office Action, it is respectfully submitted that all claims are in condition for allowance.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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